

United States Environmental Protection Agency

Washington, D.C. 20460

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Signat	ure of N	Managen	nent QA	Review	er						Agency	y/Offi	ce/Phone a	and F	ax Numbe	ers			Da	ate			ſ

## **Inspection Conclusion Data Sheet (ICDS)**

## FY2011

Inspector:_David Turin				
Inspection Date:July 1	10, 2012			
Facility Name/Address:	Scarborough State Bea	ch, Narragan	sett, RI	
Facility Manager/Title and one contacted	l Address (if different from	n facility add	ress):Reconnaissance - no	)
Facility Contact/Title and	Address (if different from	facility addre	ess):	
1. Media Type: (Check	one)			
☐ CAA-Stationary	☐ CAA-Mobile Source	e 🗆 C	CAA-112r	
☐ CAA-NESHAP				
□ CWA-NPDES	☐ CWA-Pretreatment	POTW 🗆 C	CWA-Pretreatment IU	
□ CWA 311		: C'	WA-Stormwater	
□ EPCRA 313	□ EPCRA N313			
□ RCRA-C	□ RCRA-I			
□ SDWA-UIC	□ SDWA-PWSS			
☐ ISCA-Lead Paint	□ TSCA-PCBs	□ ISCA-Co	re   ISCA-AHERA	
2. Did you observe defic	iencies (potential violatio	ns) during t	he inspection?	
□ Yes : No				
3. If you observed defici	encies, did you communi	cate them to	the facility during the	
inspection?				
□ Yes □ No				

. Deficienci	es observed?
Potential vi	olation of a compliance schedule in an enforceable order.
Potential fa	ilure to maintain a record or failure to disclose a document.
Potential fa	ilure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.
Potential fa	ilure to complete or submit a notification, report, certification, or manifest.
Potential fai	lure to obtain a permit, product approval, or certification.
Potential fa	ilure to follow a required sampling or monitoring procedure or laboratory procedure.
Potential fa	ilure to follow or develop a required management practice or procedure.
Potential fai	lure to identify and manage a regulated waste or pollutant in any media.
Potential fa	ilure to report regulated events such as spills, accidents, etc.
Potential in	correct use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.
Potential fa	ilure to follow a permit condition(s).
•	oserve or see the facility take any actions during the inspection to address the communicated to the facility?
•	·
eficiencies o  □ Yes  If YES, ch	communicated to the facility?
□ Yes  If YES, chetion in the '	communicated to the facility?  □ No : N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)
☐ Yes  If YES, chection in the '  Action(s) tak	communicated to the facility?  □ No : N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)
Figure 2	communicated to the facility?  No : N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)  en  ete(d) a Notification or Report
Figure 2	communicated to the facility?  No : N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)  en  ete(d) a Notification or Report (ed) Monitoring Deficiencies
eficiencies of  ☐ Yes  If YES, chetion in the '  ction(s) tak  Comple  Correct  Correct	communicated to the facility?  No : N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)  en  ete(d) a Notification or Report
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eficiencies of Yes  If YES, chetion in the '  ction(s) tak  Completion Correct Implem Improv	communicated to the facility?  No N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)  en  ete(d) a Notification or Report  e(ed) Monitoring Deficiencies  (ed) Record Keeping Deficiencies  ented New or Improved Management Practices or Procedures  ed Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)
Figure 2	communicated to the facility?  No : N/A only if #3 was NO.  eck only the action(s) actually observed/seen or write in a short description of the optional" section. (Check all that apply)  en  ete(d) a Notification or Report (ed) Monitoring Deficiencies (ed) Record Keeping Deficiencies ented New or Improved Management Practices or Procedures

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water:	9 Ammonia 9BOD 9COD 9TSS 9O/G 9Total Coliform 9D.O.
	9 Metals 9 Cyanide 9 Other
	Air: 9NOx 9SO2 9PM 9VOC 9Metals 9HAPs 9CO
	vide general compliance assistance in accordance with the policy on the Role pector in Providing Compliance Assistance During Inspections?
□ Yes	: No
	vide site-specific compliance assistance in accordance with the policy on the A Inspector in Providing Compliance Assistance During Inspections?
□ Yes	: No
of actions taken	<b>ional Information:</b> EPA inspectors may wish to provide a narrative description by the facility or assistance to help the facility come into compliance. be used in national or regional reports to provide examples of EPA inspection
	connaissance of stormwater discharge locations at Scarborough State Beach. d Turin, Erin Trainor, Hannah Zegler (intern), and Tali Smookler (intern).



### United States Environmental Protection Agency Office of Environmental Measurement & Evaluation 11 Technology Drive North Chelmsford, MA 01863-2431

Laboratory Report

November 13, 2012

Erin Trainor - EIA / OEME US EPA New England R1

Project Number: 12100011

Project: Rhode Island Beaches

Analysis: HPLC/MS/MS Source Tracking Analysis

Analyst: Peter Philbrook

#### Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIA-LCMS\_STA.0.

The SOP is based on an EPA Regional Analytical Method developed at the EPA New England Laboratory.

Date Samples Received by the Laboratory: 10/10/2012

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8340.

Sincerely,

Digitally signed by Dan Boudreau DN: cn=Dan Boudreau, o=EPA, ou=EIA, email=boudreau.dan@epa.gov, c=US

Date: 2012.11.13 13:45:23 -05'00'

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#### Qualifiers

- RL = Reporting limit
  - ND = Not Detected above Reporting limit
  - NA = Not Applicable due to high sample dilutions or sample interferences
  - J = Estimated value
  - E = Estimated value exceeds the calibration range
  - L = Estimated value is below the calibration range
  - B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
  - P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
  - C =The identification has been confirmed by GC/MS.
  - R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

### **Rhode Island Beaches**

### **HPLC/MS/MS Source Tracking Analysis**

Client Sample ID:	SB01	Lab Sample ID:	AB34186
Date of Collection:	10/10/2012	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	7.62
Volume Extracted:	500 mL	Extract Dilution:	1

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	0.99	2.0	L
103-90-2	Acetaminophen	0.53	2.0	L
486-56-6	Cotinine	1.3	0.40	
611-59-6	1,7-Dimethylxanthine	0.92	2.0	L
58-08-2	Caffeine	4.43	4.0	В
298-46-4	Carbamazepine	0.86	0.40	
56392-17-7	Metoprolol	0.61	2.0	L

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	66	23 - 181
Sulfamethazine 13C6	28	15 - 132

Comments: B = Caffeine was detected in the blank, value could be associated with blank contamination.

L = Estimated value is below the calibration range.

### **Rhode Island Beaches**

## **HPLC/MS/MS Source Tracking Analysis**

Client Sample ID:	SB02	Lab Sample ID:	AB34187
Date of Collection:	10/10/2012	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	7.08
Volume Extracted:	500 mL	Extract Dilution:	10

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	20.0	
103-90-2	Acetaminophen	260	20.0	
486-56-6	Cotinine	96	4.00	
611-59-6	1,7-Dimethylxanthine	450	20.0	
58-08-2	Caffeine	1500	40.0	
298-46-4	Carbamazepine	ND	4.00	
56392-17-7	Metoprolol	ND	20.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	62	23 - 181
Sulfamethazine 13C6	108	15 - 132

### **Rhode Island Beaches**

## **HPLC/MS/MS Source Tracking Analysis**

Client Sample ID:	SB03	Lab Sample ID:	AB34188
Date of Collection:	10/10/2012	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	7.34
Volume Extracted:	500 mL	Extract Dilution:	2

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	4.00	
103-90-2	Acetaminophen	15	4.00	
486-56-6	Cotinine	62	0.80	
611-59-6	1,7-Dimethylxanthine	49	4.00	
58-08-2	Caffeine	400	8.00	
298-46-4	Carbamazepine	ND	0.80	
56392-17-7	Metoprolol	ND	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	70	23 - 181
Sulfamethazine 13C6	110	15 - 132

### **Rhode Island Beaches**

## **HPLC/MS/MS Source Tracking Analysis**

Client Sample ID:	SB09	Lab Sample ID:	AB34189
Date of Collection:	10/10/2012	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	6.97
Volume Extracted:	500 mL	Extract Dilution:	1 & 5

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.0	
103-90-2	Acetaminophen	13	2.0	
486-56-6	Cotinine	26	2.00	
611-59-6	1,7-Dimethylxanthine	94	10.0	
58-08-2	Caffeine	920	20.0	
298-46-4	Carbamazepine	ND	2.00	
56392-17-7	Metoprolol	ND	10.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	52	23 - 181
Sulfamethazine 13C6	34	15 - 132

### **Rhode Island Beaches**

## **HPLC/MS/MS Source Tracking Analysis**

Client Sample ID:	SB04	Lab Sample ID:	AB34190
Date of Collection:	10/10/2012	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	6.95
Volume Extracted:	500 mL	Extract Dilution:	2

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	4.00	
103-90-2	Acetaminophen	13	4.00	
486-56-6	Cotinine	12	0.80	
611-59-6	1,7-Dimethylxanthine	11	4.00	
58-08-2	Caffeine	310	8.00	
298-46-4	Carbamazepine	ND	0.80	
56392-17-7	Metoprolol	ND	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	62	23 - 181
Sulfamethazine 13C6	110	15 - 132

### **Rhode Island Beaches**

## **HPLC/MS/MS Source Tracking Analysis**

Client Sample ID:	SB05	Lab Sample ID:	AB34191
Date of Collection:	10/10/2012	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	7.49
Volume Extracted:	500 mL	Extract Dilution:	2

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	4.00	
103-90-2	Acetaminophen	14	4.00	
486-56-6	Cotinine	10	0.80	
611-59-6	1,7-Dimethylxanthine	62	4.00	
58-08-2	Caffeine	200	8.00	
298-46-4	Carbamazepine	ND	0.80	
56392-17-7	Metoprolol	2.0	4.00	L

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	68	23 - 181
Sulfamethazine 13C6	63	15 - 132

## Rhode Island Beaches Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix	Water
Date of Extraction:	10/11/12	Final Volume:	1 mL
Date of Analysis:	10/31/12	pH:	6.96
Volume Extracted:	500 mL	Extract Dilution:	1

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.0	
103-90-2	Acetaminophen	ND	2.0	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.0	
58-08-2	Caffeine	7.4	4.0	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
Sulfamethazine 13C6	77	
Primidone d5	92	

### MATRIX SPIKE (MS)

Rhode Island Beaches Sample ID: AB34191

SPIKE ADDED ng/L	SAMPLE CONCENTRATION ng/L	MS CONCENTRATION ng/L	MS % REC	QC LIMITS (% REC)
144	76	234	110	13 - 174
144	17	147	90	23 - 138
144	ND	108	75	49 - 137
288	250	499	87	31 - 156
29	ND	25.4	88	47 - 143
29	13	41	97	46 - 121
144	2.4	199	137	60 - 140
	ADDED ng/L 144 144 144 288 29 29	ADDED CONCENTRATION ng/L ng/L  144 76 144 17 144 ND 288 250 29 ND 29 13	ADDED CONCENTRATION ng/L ng/L ng/L ng/L  144 76 234 144 17 147 144 ND 108 288 250 499 29 ND 25.4 29 13 41	ADDED CONCENTRATION CONCENTRATION % ng/L ng/L ng/L REC  144 76 234 110 144 17 147 90 144 ND 108 75 288 250 499 87 29 ND 25.4 88 29 13 41 97

### **Laboratory Duplicate Results**

**Rhode Island Beaches** 

Sample ID: AB34186

PARAMETER	SAMPLE RESULT ng/L	SAMPLE DUPLICATE RESULT ng/L	PRECISION RPD %	QC LIMITS
1,7-Dimethylxanthine	1.2	2.0	50.0	50
Acetaminophen	0.67	0.90	29.3	50
Atenolol	1.2	0.91	27.5	50
Caffeine	5.5	7.2	26.8	50
Carbamazepine	1.1	1.5	30.8	50
Cotinine	1.6	2.0	22.2	50
Metoprolol	0.76	0.70	8.22	50

Comments: Sample/Sample Duplicate Higher RPDs were observed due to reporting compounds near or below the Reporting Limit.

### Laboratory Fortified Blank (LFB) Results

Rhode Island Beaches

PARAMETER	LFB AMOUNT SPIKED ng/L	LFB RESULT ng/L	LFB RECOVERY %	QC LIMITS %
1,7-Dimethylxanthine	120	107	89	64 - 135
Acetaminophen	120	73.5	61	48 - 122
Atenolol	120	101	84	52 - 128
Caffeine	240	204	85	68 - 126
Carbamazepine	24	21.0	88	65 - 121
Cotinine	24	21.3	89	60 - 120
Metoprolol	120	99.5	83	60 - 140

ENVIRONMENTAL PROTECTION AGENCY

5804 SAMPLERS: (Signature) 5805 5309 5802 5801 Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) STA. NO. 1100011 5603 PROJ. NO. DATE TIME 10/10/12 10:00 REGION 1 Mis Navegansof RI RI Bochos PROJECT NAME 11:11 11:36 10:15 10:10 11:00 Distribution: Original Accompanies Shipmeny; Copy to Coordinator Field Files COMP. GRAB Date / Time Date / Time Date / Time 1450 STATION LOCATION Received by: (Signature) Received by: (Signature) Received for Laboratory by:
(Signature). CHAIN OF CUSTODY RECORD CON-NO. 읶 义 Relinquished by: (Signature) Relinquished by: (Signature) 10/10/12 14:50 Date / Time Remarks CC, Dave Turin for resoults (David) Date / Time Date / Time Received by: (Signature) Received by: (Signature) REMARKS